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ABSTRACT

Difficulties in self-starting a permanent magnet motor are eliminated in a structure including a stator with a rotor journalled within the stator for rotation about an axis. The rotor includes a body of ferromagnetic material having a nominally cylindrical peripheral surface concentric with the axis. Permanent magnets are located on the peripheral surface to define equally angularly spaced magnetic poles with alternating ones of the poles being of opposite polarity. A thin, hollow cylinder formed of a good electrically conducting material is disposed on the body to sandwich the magnets against the peripheral surface of the body and provides a situs for the generation of localized induced electrical current which generates magnetic fields that react with rotating magnetic fields in the stator to start the motor from a dead stop without the need for position sensors or controlled electronics.